

# NAG Library Function Document

## nag\_real\_smallest\_number (X02AKC)

### 1 Purpose

nag\_real\_smallest\_number (X02AKC) returns the smallest positive floating-point number.

### 2 Specification

```
#include <nag.h>
#include <nagx02.h>
double nag_real_smallest_number
```

### 3 Description

nag\_real\_smallest\_number (X02AKC) is a constant defined in the C Header file.

nag\_real\_smallest\_number (X02AKC) returns the smallest positive number in the model of floating-point arithmetic described in the x02 Chapter Introduction. The returned value is equal to  $b^{e_{\min}-1}$ , where  $b$  is the arithmetic base (see nag\_real\_base (X02BHC)) and  $e_{\min}$  is the minimum exponent (see nag\_real\_min\_exponent (X02BKC)) in the model.

### 4 References

None.

### 5 Arguments

None.

### 6 Error Indicators and Warnings

None.

### 7 Accuracy

None.

### 8 Parallelism and Performance

nag\_real\_smallest\_number (X02AKC) is not threaded in any implementation.

### 9 Further Comments

None.

### 10 Example

None.

---